

BEREZKIN, V.G.

Method for calculating chromatograms in gas-liquid chromatography.
Neftekhimiia 1 no.2:169-171 Mr-Ap '61. (MIRA 15:2) K

1. Institut neftekhimicheskogo sinteza AN SSSR.
(Gas chromatography)

Method and apparatus for...

S/081/62/000/002/042/107
B151/B108

the $C_2 - C_5$ hydrocarbons are frozen out and then examined in (A) II. The composition of the gas is found with a catharometer. The chromatographic columns of (A) I and II have the following dimensions: length 2.5 and 6m, internal diameter 5 and 6 mm, respectively. The separating fluid in the first case is methyl phenylpoly-siloxane oil on diatomic brick of dimensions 0.2 - 0.315 mm and in the second case a solution of $AgNO_3$ in ethylene glycol and furfural. The temperature of the (A) I column is regulated from 40 to 150°C, the working temperature of the (A) II column is 0°C. The minimum sensitivity of (A) II is $1 \cdot 10^{-3}$ ml of gas. The system described is used for the analysis of the radiolysis products of heptane (with a radiation dose of $10^7 - 10^9$ r) and liquid butane. Graphs of the results of the investigation, and diagrams of the apparatus, and equipment for introducing the mixtures to be analyzed into the column are given.

[Abstracter's note: Complete translation.]

Inst. Petro-Chim. Synthesis AS USSR

Card 2/2

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S/081/62/000/002/042/107
B151/B108

5.5600

AUTHOR: Berezkin, V. G.

TITLE: Method and apparatus for chromatographic investigation of the products of hydrocarbon radiolysis

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1962, 173, abstract 2Ye52 (Tr. Tashkentsk. konferentsii po mirn. ispol'zovaniyu atomn. energii, v. 2, Tashkent, AN UzSSR, 1960, 425 - 429)

TEXT: A system for chromatographic analysis of the products of radiolysis of hydrocarbons has been elaborated. The carrier gas (He), passing through a drying column (calcined CaCl_2) and a compensation pickup, enters an arrangement for introducing the sample and then passes into the chromatographic devices (A) I and II. These include chromatographic columns, measuring pickups for the gas coming from the column, rheometers, and an arrangement for automatic recording of the separation process (an EPM-09 (EPP-09) potentiometer with a 10 mv scale). In (A) I, full analysis of the high-molecular fraction (C_6 - C_8) takes place, and simultaneously

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Low-temperature Radiolysis of Hydrocarbons

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yield of the heavy residue on the irradiation temperature of heptane. It may be observed from table 4 that the total amount of the heavy residue (compounds $\geq C_{10}$) drops to almost 2/5 on the transition from 300 to 77°K. To conclude, the authors state that at 300°K the molecular formation way of H_2 is about 50%, and at 77°K it rises to 60% on the expense of the radical way. A verbal communication made by B. A. Smirnov is mentioned in the text. There are 2 figures, 4 tables, and 4 references, 3 of which are Soviet.

ASSOCIATION: Institut neftekhimicheskogo sinteza Akademii nauk SSSR
(Institute of Petroleum-chemical Synthesis of the Academy of Sciences, USSR)

SUBMITTED: August 1, 1959

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Low-temperature Radiolysis of Hydrocarbons

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yield and vice versa. This may be observed particularly well on iso-octane. Not only the drop of the H₂-yield is compensated here but furthermore, this yield is increased at 77°K, where the yield of fragment radicals is strongly reduced. Table 2 shows the yields of individual hydrocarbons from C₁ to C₅, which were obtained from heptane by radiolysis at 300, 195, and 77°K. It may be seen therefrom that both the light saturated radiolysis products and the light unsaturated ones decrease somewhat on the transition from room temperature to 195°K. Afterwards, their amount drops to 5/9. Table 3 shows the change in composition and amount of the unsaturated products. At all mentioned temperatures (dosage $\sim 2\text{-}4 \cdot 10^{21}$ ev) trans-olefins, α -olefins and vinylidene structures are formed. The two olefins may be assumed to be brought on the basis of a molecular mechanism, as their formation is independent of temperature. The amount of vinylidene structures rapidly drops with temperature. This may be explained by a secondary character of their formation. Dienes⁴ are no doubt radiation-primary reaction products (Ref 4). Their yield is multiplied with temperature drop. Figure 2 shows the dependence of the

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Low-temperature Radiolysis of Hydrocarbons

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(in agreement with Ref 3). The dependence of the H₂- and CH₄-yield from isoctane on the temperature is particularly striking. On the transition from room temperature to 195°K the H₂-yield drops somewhat, but rises at 77°K. The amount of CH₄ drops markedly with dropping temperature. Atomic hydrogen effects the formation of H₂-molecules in two ways: H+H → H₂ (1), and H+RH → R'+H₂ (2), in which connection reaction (2) requires a certain activation energy. Nonetheless, the major part of H₂ is bound to develop with reaction (2) at 300°K due to the great difference in the concentrations of H and RH. Reaction (2) is rendered more difficult at 77°K. This would be expected to cause the yield of the H₂ part, which is formed by way of the radical, to drop by a maximum 50%. In reality, this decrease is 15% only. In the case of isoctane the H₂ yield even increases. Two causes may account for it: 1) Reaction (2) is not entirely suppressed, because the resulting atomic H may be "hot". 2) The lower yield of fragments from the burst of the C-C-bond may partially compensate the resulting H₂-yield. Any increase in the yield of fragment radicals is bound to effect a drop in the molecular hydrogen

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SOV/20-129-5-22/64

AUTHORS: Berezkin, V. G., Kustanovich, I. M., Polak, L. S., Topchiyev,
A. V., Academician, Chernyak, N. Ya.

TITLE: Low-temperature Radiolysis of Hydrocarbons

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 5,
pp 1042 - 1045 (USSR)

ABSTRACT: The authors investigated the influence exerted by low temperatures and by the phase condition on the yield of various products of hydrocarbon radiolysis. The methods of preparation and irradiation were described in reference 1. The composition of the radiolysis products was determined by chromatographic measurement. The concentration of the free radicals was measured by the instrument type EPR. The spectra were taken by the spectrograph type IKS-14 (infrared spectrum) and SF-4 (ultraviolet spectrum). Table 1 supplies data concerning hydrogen and methane yields from heptane, cyclohexane,¹ and isooctane.¹ It may be observed therefrom that the hydrogen yield drops by about 10-15% with heptane- and cyclohexane irradiation in the transition from room temperature to 195°K. A further temperature drop has no noticeable effect

BEREZKIN, V.G., GORSHUNOV, O.L.

Use of frontal-chemical concentration method for the chromatographic analysis of microimpurities in carbon dioxide. Izv. AN SSSR, Ser. khim. no.11:2069-2070 '65. (MIRA 18:11)

1. Institut neftekhimicheskogo sinteza im. A.V. Topchiyeva
AN SSSR.

BEREZIN, V.G.; PAKHOMOV, V.P.

Preparation of sorbents for the gas-liquid chromatography, chm.
I tekh. topl. i magel 16 no. 7:59-61 S 1959 (BELL 1959)

I. Institut naftokhimicheskogo sinteza AN SSSR.

BEREZKIN, V.A.; KIRIL'IEVA, V.S.; SHURAYEVA, V.Ye.

Chromatographic method of studying the kinetics of chemical reactions
in the steady-state phase. Kin. i kat., 6 no.4:758-760. Jl-ig 165.
(MIRA 18:9)

1. Institut neftekhimicheskogo sinteza imeni A.V. Topchiyeva AN SSSR.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800006-6

BEREZKIN, V.G., kand.tekhn.nauk,dotsent; KLIMENKO, N.P., starshiy prepodavatel'

Central Asiatic Conference on Welding. Trudy Frunz. politekh.
inst. no. 6 213-214 '62. (MIRA 17:9)

BEREZKIN, V.G., kand.tekhn.nauk, dotsent

Graphic calculation of forging press pedestals and the characteristics of their stressed state. Trudy Frunz. politekh. inst. no. 6:141-151 '62.

Effect of the size of a stamp on the power of a stamping hammer.
Ibid.:153-154 (MIRA 17:9)

BEREZKIN, V.G., kand.tekhn.nauk; KLIMENKO, N.P., inzh.

Effect of the cutting angle on the widening and drawing intensity
in forging in cutting dies. Vest.mash. 41 no.10:52-54 0 '61.
(MIRA 14:10)
(Forging)

BEREZKIN, V.G.

Deformation resistance of forgings and total deformations during
drawing and upsetting operations. Kuz.-shtam. proizv. 3 no.9:
21-22 S '61. (MIRA 14:9)
(Forging) (Drawing (Metalwork))

Effect of the angle of indentation ...

S/122/61/000/010/u08/011
D221/D304

feed ψ . Experimental values of the above can be applied for all rounded hammer heads. There are 5 figures and 2 Soviet-bloc references.

Fig. 4. Relationship between coefficient of widening and angle of indentation of hammer heads for various relative feeds.

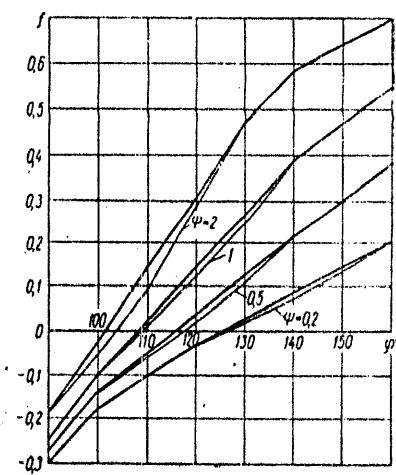


Рис. 4. Зависимость коэффициента уширения от угла вреза бойков при разных относительных подачах.

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Effect of the angle of indentation ...

S/122/61/000/010/008/011
D221/D304

blanks provided broken curves of relationship between coefficient f and the relative speed and the direct function of angle of indentation φ (Fig. 4). The graphs given show that the intensity of drawing is greater for flat hammer heads than in all types of indentation dies. Another deduction is that the reduced relationships possess different characteristics with various feeds. Hammer heads with a smaller angle of indentation become less universal, and the maximum possible ratio of compression decreases. The secondary compression after turning over produced greater widening. The widening during secondary compression does not depend upon the angle of indentation of the hammer head. This is due to the fact that the rhombic blank pressed edgewise is not subject to pressure of sides of indentation, and is compressed in the same manner as with flat hammer heads. More intensive drawing in indentation hammer heads as compared with flat heads takes place only with round blanks. The ratio of deformation during pressing and feeding is determined by the coefficient of thickening, $k = d'/2r$, where d' is the diameter of blank after second compression. This factor depends upon the angle of indentation of the hammer heads and rises with increase of

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Effect of the angle of indentation ...

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D221/D304

the section after pressing are defined by

$$h_1' = r \sqrt{\pi} \quad (3)$$

and

$$b_1' = \frac{F_1}{h_1'} \quad (4)$$

The widening was calculated according to

$$f = 1 - \frac{1}{\epsilon} (1 - \frac{1}{y}) \quad (5)$$

In the above ϵ is the ratio of compression; y is the amount of forging. The latter is determined as the ratio of sectional areas or lengths prior to and after forging, i.e. $y = F_0/F_1 = L_1/L_0$. The relative feed is assumed to be the ratio of absolute feed to the initial width of blank $\psi = l_0/b_0 = l_0/2R$. Absolute feed l_0 is the length of part of the blank which is placed under the hammer head. Blanks were fed under different hammer heads with various feeds and almost equal ratio of compression ($\epsilon \approx 25\%$). Each batch of

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S/122/61/000/010/008/011
D221/D304

AUTHORS: Berezkin, V.G., Candidate of Technical Sciences, and
Kilmenko, N.P., Engineer

TITLE: Effect of the angle of indentation on widening and
intensity of drawing during free forging with hammer
heads

PERIODICAL: Vestnik mashinostroyeniya, no. 10, 1961, 52 - 54

TEXT: The authors investigated the process of drawing in necking
dies to establish the relationship between the widening of blank
and the magnitude of feed and the angle of indentation in the die.
The geometrical form of die (hammer head) is defined by $B =$
 $= \frac{2r}{\cos \frac{\varphi}{2}}$, where r is the radius of rounding, and φ is the angle of
indentation.

Reduced widening is assumed so as to take into consideration
expansion in this involved section, and also for comparing
with the widening of the square blank pressed by flat hammer
heads. The reduced height and width of the initial round blank and
Card 1/4

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800006-6

BEREZKIN, V.G., kand.tekhn.nauk; KLIMENKO, N.P., inzh.

Enlargement caused by drawing in grooved and flat dies with
edging. Vest.mash. 40 no.10:53-55 0'60. (MIRA 13:10)
(Drawing (Metalwork))

BEREZIN, V.G., kand.tekhn.nauk; KLIMENTO, N.P., inzh.

Widening of billets with circular cross sections caused by
drawing in slotted dies. Vest.mash. 40 no.9:47-51 S '60.

(MIRA 13:9)
(Forging)

BEREZKIN, V.G.

122-3-25/30

AUTHOR: Berezkin, V.G., Candidate of Technical Sciences.
TITLE: On the Experimental Verification of Stresses in the Push Rods of Stamping Hammers (Ob eksperimental'noy proverke napryazheniy v shtokakh shtampovochnykh molotov)
PERIODICAL: Vestnik Mashinostroyeniya, 1957, No.3, pp. 66 - 68;73
(USSR)

ABSTRACT: An article of the same name by Sh.S. Mazitov (Vestnik Mash. 12, 1955) is criticised. In a real stamping hammer, the rod is subject to high stresses even exceeding the plastic limits. The tests on which the earlier deductions were based were carried out with an unrepresentative hammer model in which the piston was replaced by a guiding block weighing 6.3 times more than the rod. In practical hammers the piston weighs only about 0.4 times the rod weight. The preservation of the geometric and energy ratio should have been accompanied by similarity of weight ratio. The great differences in the stresses caused in the rods by a difference in the weight ratios is discussed. Moreover, no measurement was taken of the velocity of impact. Furthermore, the stresses are greatly affected by the stiffness of the whole system which was not taken into account, although it can be assumed that the stiffness of the model investigated Card1/2 was lower than the stiffness of a full-scale hammer.

SOV/137-57-6-9986

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 6, p 92 (USSR)

AUTHOR: Berezkin, V.G.

TITLE: Some Possibilities of Increasing the Strength of Forging-hammer
Rods (Nekotoryye vozmozhnosti povysheniya stoykosti shtokov
shtampovochnykh molotov)

PERIODICAL: Tr. Omskogo mashinostroit. in-ta, 1956, Nr 1, pp 119-124

ABSTRACT: Stresses in rods (R) can be reduced by reducing the dropping
speed of the head and by reducing the modulus of elasticity and the
density of the R material. It is suggested that light alloys (such as
MA-3) be used for R and that light anti-corrosion alloys (such as
MA-1) be used for the plunger. Calculations are adduced confirming
the desirability of employing light alloys for R, and the advan-
tages of such R are indicated.

Ya.O.

Card 1/1

BEREZKIN, V.G., kandidat tekhnicheskikh nauk.

Coupled parts and the rigidity of press frames. [Trudy] MVTU
no. 42:59-67 '55.
(MLBA 9:5)
(Power presses) (Strains and stresses)

BEREZKIN, V.G., kandidat tekhnicheskikh nauk.

Flat die hammer drawing and forging. [Trudy] MVTU no.40:100-129
'55. (MLRA 9:8)
(Forging)

BEREZKIN V. G.

UNSR/Miscellaneous - Metal working

Card : 1/1

Authors : Berezkin, V. G., Engineer

Title : Calculating the spread under flat hammers

Periodical : Vest. Mash. 34/5, 61 - 64, May 1954

Abstract : The author deals with the working of metals by pressure and the coefficient of lateral extension. Formulas are presented for calculating such extensions. These formulas are incorporated into 19 equations, involving such elements as hardness of material, weight and speed of hammer, number of blows, dimensions of blank, etc. The findings of other experimenters are cited and evaluated. Seven Russian references, latest 1948, graphs.

Institution :

Submitted :

BEREZKIN, V. G. Eng.

Forging

Work of the shaft in drop forging hammers. Vest. mash. 33 No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

BEREZKIN, V.A.

(Deceased)

See ILC

Meteorology

BEREZKIN, V., sud'ya vsesoyuznoy kategorii

Facilities made available for racing training. Za rul. 19 no.4:17
Ap '61. (MIRA 14:7)
(Automobile racing) (Motorcycle racing)

L 3130-66

AM5023884

Manufacturing Tractor Subassemblies (O. D. Superek and V. I. Arulev) -- 68

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Complex Mechanization of Assembly and Welding Operations in Manufacturing Heavy Caterpillars (I. F. Kobzev) -- 119

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SUB CODE: MM

SUBMITTED: 04Mar65 NO REF SOV: 020

OTHER: 000

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Machinery and Road Building Machines (L. A. Kheybets, R. A. Vlassov
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Semiautomatic Welding in Shielding Carbon Dioxide Gas--Used for
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AM5023684 EWA(c) JD/MM BOOK EXPLOITATION UR/
621.791.10-52:002.5

Berezkin, P. N., ed.

Mechanization and automation of welding production; experience of the Ural factories (Mekhanizatsiya i avtomatizatsiya svarochnogo proizvodstva; opyt ural'skikh zavodov) Moscow, Izd-vo "Mashino-stroyeniye", 1965. 155 p. illus., biblio. Errata slip inserted.
4000 copies printed

TOPIC TAGS: welding, welding industry mechanization, welding industry automation, electrode fabrication, welding equipment

PURPOSE AND COVERAGE: This book is intended for engineering personnel engaged in the fabrication of welded structures. Practices introduced at Ural Plants in fabricating welded metal structures used in machine-building and construction are summarized. Mechanization of processes employed in manufacturing electrodes for manual arc welding and sintered belt-type electrodes for surfacing of parts is described. Advanced technological processes for assembling and welding parts are described.

ZAKHvatkin, Yevgeniy Vasil'yevich, inzh.; NAUMOV, Vladimir
Ivanovich, inzh.; BEREZKIN, P.N., red.; SNET, Ye.B., red.

[Semiautomatic and automatic welding in an atmosphere of
carbon dioxide; from practices of the Ural Automobile
Plant] Poluavtomaticheskaya i avtomaticheskaya svarka v
srede uglekislogo gaza; iz ocyta Ural'skogo avtomobil'nogo
zavoda. Cheliabinsk, Uralo-Ural'skoe knizhnoe izdatel'stvo
1964. 49 p. (NIBA 18.4)

1. Ural'skiy avtomobil'nyy zavod (for Zakhvatkin, Naumov).

BALZHI, M.F.; BEREZKIN, P.N.; GOL'DSHTEYN, Ya.Ye.; GAL'PERIN, Ye.B.;
YEDLICHKO, V.V.; KERAS, A.F.; LEKUS, I.D.; POTEKUSHIN, N.V.;
POZDNYSHOV, V.M.; SUBBOTIN, N.A.; SAVINTSEV, R.I.; TAMAROVSKIY,
V.M.; SHEREMET'YEV, A.D.; BAKSHI, O.A., kand. tekhn. nauk,
retsenzent; BONDIN, Ye.A., inzh., retsenzent; BOYKO, F.I., inzh.,
retsenzent; VASIN, Yu.P., inzh., retsenzent; LAZAREV, A.A., inzh.,
retsenzent; SOROKIN, A.I., inzh., retsenzent; KON'KOV, Arkadiy
Sergeyevich, dots., red.; DUGINA, N.A., tekhn. red.

[Economy of metals in the machinery industry]Ekonomiya metallov
v mashinostroenii. [By]M.F.Balzhi i dr. Moskva, Mashgiz, 1962.
(MIRA 16:2)

235 p.

(Machinery--Design and construction)
(Metals, Substitutes for)

BEREZKIN, P.N.; PATSKEVICH, I.R., kand. tekhn. nauk, retsensent;
KOVALENKO, A.V., inzh., red.; DUGINA, N.A., tekhn. red.

[Built-up welding of dies] Naplavka shtampov. Pod red. A.V.
Kovalenko. Moskva, Mashgiz, 1961. 27 p. (MIRA 15:4)
(Dies (Metalworking))

GALAKTIONOV, A.T.; DENISOV, Yu.A.; KOPYTOV, G.T.; MASLOV, Yu.A.; NIKONOV, I.P.; PETUNIN, I.V.; KOCHEVA, G.N.; KUZNETSOV, A.P.; LELEKO, N.M.; RAZIKOV, M.I.; SPESHKOV, V.V.; STEPANOV, B.V., STEPANOV, V.V.; kand. tekhn. nauk; SHELOMOV, B.Ye.; YUNYSHEV, G.P.; YES'KOV, K.A., dots., retsenzent; BAKSHI, O.A., dots., retsenzent; BEREZKIN, P.N., dots., retsenzent; PATSKEVICH, I.R., dots., retsenzent; RUDAKOV, A.S., dots., retsenzent; FIZHBEYN, N.B., inzh., retsenzent; KHRUSTALEV, L.Ya., inzh., retsenzent; KRUTIKHOVSKIY, V.G., inzh., red. BOBROV, Ye.I., kand. tekhn. nauk, red. DUGINA, N.A., tekhn. red.

[Welding handbook] Spravochnik rabochego-svarshchika. Pod red. V.V. Stepanova. Moskva, gos. nauchno-tehnicheskoye mashinostroit. lit-ry, 1960. 640 p. (Welding) (MIRA 14:6)

BREZZIN, Petr Nikiforovich; NIKONOV, I.P., kand.tekhn.nauk, retsenzent;
MASLOV, Yu.A., inzh., retsenzent; KOCHEGA, G.N., inzh., red.;
DUGINA, N.A., tekhn.red.

[Manual arc welding and hard facing] Ruchnaja dugovaja svarka
i naplavka. Moskva, Gos.sauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1960. 39 p. (Nauchno-populiarnaja biblioteka rabochego-
svarshchika, no.12) (MIRA 14:4)
(Electric welding) (Hard facing)

BEREZKIN, P.N., dots.

Method of verifying the weldability of thin sheet carbon steel.
[Sbor. st.] CHIPI no.16:51-55 '59. (MIRA 12:9)
(Sheet steel--Welding)

SOV/135-59-5-20/21

A Conference of Readers of "Svarochnoye proizvodstvo"

ASSOCIATION: TsNTB of the Chelyabinsk sovnarkhoz (Shvartsburg);
Welding Section of ChelyabNTOMASHPROM (Berezkin).

Card 2/2

25(1)

309/135-59-5 26/21

AUTHOR: Shvartsburg, G.D., Director, Berezkin, P.N., Deputy Chairman

TITLE: A Conference of Readers of "Svarochnoye proizvodstvo"

PERIODICAL: Svarochnoye proizvodstvo, 1959, Nr 5, p 46 (USSR)

ABSTRACT: The engineering and technical active members among the welders of Chelyabinsk wanted a readers' conference, so the local office of the welding section of ChelyabNTO of MASHPROM, together with the municipal scientific and technical library of TsBTI of the Sovnarkhoz, arranged one. Seventy-seven representatives of local plants and institutes took part. V.S. Chernyak, the scientific editor of this journal, gave a talk on the work and tasks of the journal. Everyone agreed that it was a good journal but had a few defects; better coverage of concrete production experience, especially on complex automation and mechanization, more discussions and book reviews were needed. It was considered necessary to suggest publishing a mass production and technical journal "Svarshchik" for the masses. Everyone hoped "Svarochnoye proizvodstvo" would carry on the good work in the 7-year plan.

Card 1/2

PHASE I BOOK EXPLOITATION SOV/3727

Rasshireniye vozmozhnosti primeneniya plastmass v konstruktsiyakh
maschin (Widening the Possibilities for Using Plastics in
Machine Components) Moscow, Mashgiz, 1959. 163 p. \$5,000
copies printed.

Reviewers: N.V. Popov, Engineer and P.Z. Petuchov, Doctor of Technical Sciences; M.N. Sushkov, Engineer, Tech. Ed.; V.A. Dulin, A.P. Ushakov, Exec. Ed. (Ural-Siberian Division, Mashgiz); T.M. Sosorin, Engineer.

PURPOSE: The book is intended for engineers and scientists engaged in the study and manufacture of plastics and plastic machine parts.

COVERAGE: The chapters of this book were written by different authors indicated in parentheses after each chapter in the table of contents. The chapter on the use of plastics in non-Soviet countries includes data on the Skoda Works in Czechoslovakia. A number of Soviet manufacturing establishments are mentioned. Equipment using plastic parts is described and evaluated. Considerable attention is paid to automobile and chemical enterprises, as well as to the problems of automobile repair. Chapters on the use of plastic materials in types of equipment used in the food industry, agriculture, armament and chemical industries. Brand names and properties of various types of plastics and a number of Soviet-made plastic materials are given. It is thus a survey of modern Soviet plastic materials grouped according to their specific application in industry. The authors rely heavily upon the experience of Ural plastics, especially those specializing in electrical apparatus, automotive equipment, and measuring instruments. No personalities are mentioned. There are 37 references.

Ch. IV. Plastic articles for Corrosive Media (B.P. Maslikov, A.I. Kazak, ^{partly} B.S. ^{partly} I.B. ^{partly} Mettikh) 68

1. Centrifugal pump made of "voloknit" [a Phenol-formaldehyde resin with cotton filler] 71
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Problems in Welding

SOV/2280

The authors present the results of an investigation of the application of butt welding to ohmic and scale-resistant chromium-nickel alloy strips.

Yes'kov, K.A., Docent. The Problem of the Weldability of Bronzes 80
The author presents the results of his experimental investigation of electric arc welding of various types of bronzes using coated copper electrodes.

Baritina, V.A., Engineer. Investigating the Transfer of Basic Element Oxides From Coating Into the Slag and the Gas Phase 89
The author carried out experiments to determine the coefficients of transfer of alkali oxides into slag and gas phase in order to make possible the calculation of ionization of arc gases of the corresponding arc temperature and the cathode voltage drop during welding.

AVAILABLE: Library of Congress

Card 4/4

G0/bg
10-8-59

Problems in Welding

sov/2280

tion of the electrode.

Bakshi, O.A. Candidate of Technical Sciences. The Method of Measuring Electrode Vibration Amplitude in Automatic Vibroarc Surfacing by Welding

45

The author describes the principles of measuring electrode vibration by means of a measuring wedge.

Berezkin, P.N., Docent. Method of Checking Weldability of Thin Carbon Steel Sheet Metal

51

The author discusses the preference of using rimmed, killed, and semi-killed steel for the above purpose.

Patskevich, I.R., and Engineer V.M. Shakhmatov. Investigating Resistance Welding of Cast Iron to Steel

56

The authors discuss results of metallographical investigations, the results of mechanical testing of weld joints, and the possibilities of introducing the method into industry.

Rudakov, A.S., Docent, and Engineer V.M. Shakhmatov. Butt Welding of Resistance Alloys Strips

68

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Problems in Welding

SOV/2280

made of resistance alloys, resistance welding of cast iron to steel, bronze welding, and some problems of vibroelectric arc automatic surfacing by welding, and the method of testing for weldability of thin sheet carbon steel, etc. No personalities are mentioned. References follow each article.

TABLE OF CONTENTS:

Bakshi, O.A., Candidate of Technical Sciences, A.S. Rudakov, Docent, and V.M. Shakhmatov, Engineer. On the Stability of Weld Deformations¹⁴
The authors investigated the possibility of eliminating the after welding heat treatment for stress relief.

Patskevich, I.R., Candidate of Technical Sciences. Investigating the Structure and Hardness of Metal in Vibroarc Surfacing by Welding¹⁴
The author investigated the factors determining the dimensions, structure and hardness at the heat-affected zone as related to single welded-on beads.

Pinchuk, I.S., and I.R. Patskevich. Investigating the Stability of Vibroarc Surfacing by Welding³⁴

The authors discuss the relations between the parameters of vibroarc surface welding, the role of the generator characteristics, the inductivity, the amplitude and the shape of vibra-

Card 24

BEREZKIN, P.N.

25(1)

PHASE I BOOK EXPLOITATION

SOV/2280

Chelyabinsk. Politekhnicheskiy institut
Voprosy svarochnogo proizvodstva (Problems in Welding) Moscow, Mashgiz,
1959. 92 p. (Series: Its, Sbornik, No. 16). 6,000 copies
printed.

Reviewers: F.I. Boykov, Engineer, A.G. Menzenkampf, I.I. Vinnik, N.A.
Klykov, N.A. Karpova, N.I. Andrianov, V.M. Solovskoy, L.Ye. "armash,
and N.M. Yegorov, Docent; Ed. (Title page): K.A. Yes'kova, Docent;
Ed. (Inside book): A.G. Kozlov; Tech. Ed.: N.A. Dugina; Exec. Ed.
(Ural-Siberian Division, Mashgiz): A.V. Kaletina, Engineer.

PURPOSE: This collection of articles is intended for engineers, technicians and scientific workers.

COVERAGE: This is a compilation of articles written by scientific workers of the Department of Welding Processes and Equipment of the Chelyabinsk Polytechnical Institute. The articles deal with little developed or entirely new problems of practice and theory of welding. The articles cover weldment deformation, welding of strips

Card 1/4

SAKHANOVICH, Vladimir Yevstaf'yevich; BEREZKIN, P.N., dotsent, red.;
ABRAMOVICH, G.O., red.; VYGOL'IOVA, M.A., tekhn.red.

[Correcting defects in steel castings by welding] Ispravlenie
defektov stal'nogo lit'ia zavarkoi; iz opyta ChTZ. Pod red.
P.N.Berezkina. Cheliabinsk, Cheliabinskoe knizhnoe izd-vo,
1958. 78 p. (MIRA 13:7)
(Steel castings--Defects) (Steel castings--Welding)

PATSKEVICH, Ivan Romanovich; BEREZKIN, P.N., dotsent, retsenzent; GARMASH,
L.Ye., inzh., retsenzent; FROLOV, B.L., inzh., red.; DUGINA, N.A.,
tekhn.red.

["Vibration-arc" built-up welding] Vibrodugovaia naplavka. Moskva,
Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1958. (MIRA 12:5)
(Electric welding)

SOV/137-58-8-17128

On the Problem of Specialization of Electrode Fabrication

to increase the production of the E: 1) Expansion of the production of E of the E42 type, grades OMM-5 and TsM7, being manufactured at the MMMZ; 2) organization of production of E of the type E50, E-50A, EA1, etc. in the shops of the Chelyabinsk tractor plant; 3) closing of the majority of plant shops as unprofitable and incapable of producing high-quality E; 4) organization of engineering procedures for processing of components employed in E coatings from the waste and dust of mines, quarries, and plants which are engaged in the production and preparation of these components. 5) unification of the E and reduction of their type list to a smaller number of highly efficient and time-tested types.

N.T.

1. Arc welding--Electrodes 2. Electrodes--
Production

Card 2/2

BEREZKIN, P.N.

SOV/137 58-8 17128

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 132 (USSR)

AUTHORS: Berezkin, P.N., Baturin, G.I.

TITLE: On the Problem of Specialization of Electrode Fabrication (K voprosu spetsializatsii elektrodnogo proizvodstva)

PERIODICAL: Tekhn.-ekon, byul, Sov. nar. kh.-va Chelyab. ekon. administr. r-na, 1957, Nr 2, pp 48-51

ABSTRACT: Arc welding (W) accounts for approximately 70-80% of all welding processes the greater part of it being in the category of manual W. The Chelyabinsk economic rayon produces 20,000 tons of electrodes (E) of 140 different types annually. E with ionizing coatings constitute approximately 4% of the total production. The production of E is organized at almost all machine-building plants of the area. Five plants employ pressure-sheathing methods to apply the coating onto the E. Procedures for manufacture of E and processing of coating components have been mechanized at the Metalware metallurgical plant in Magnitogorsk (MMZ). Up to 55% of the total E production are shipped to plants of other areas of the national economy. The following measures are recommended in order

Card 1/2

BIREZKIN, P.N., inzh.; BONDIN, Ye.A., inzh.; GRIGOROV, G.Ya., inzh.;
DURNOVSKIY, V.I., inzh.; KOZHEUROV, P.I., inzh.; MARTOV, Ya.G.,
inzh.; RAZSHIGAYEV, A.F., inzh.; RAYEVSKIY, S.A., inzh.;
SAPOZHNIKOV, N.S., inzh.; TELIPAN, M.G., inzh.; CHEREMOVSKIY,
Yu.I., inzh.; CHERNOV, D.A., inzh.; DUGINA, N.A., tekhn.red.

[ChTZ tractors] Traktory ChTZ, Moskva, Gos. nauchno-tekhn.
izd-vo mashinostroit. lit-ry, 1957. 101 p. (MIRA 11:5)
(Tractors)

PATSEKOVICH, I.R., kandidat tekhnicheskikh nauk; BAUTINA, V.A., inzhener;
~~BEREZKIN, P.N.~~, inzhener.

Causes for the destruction of paint around welded seams. Sel'khoz-mashina no.2:25-28 F '56. (MLRA 9:5)

1. Chelyabinskij politekhnicheskiy institut (for Bautina);
2. Chelyabinskij traktornyy zavod imeni Staline (for Berezkin).
(Tractors--Painting)

BEREZKIN, P. N.

PATSKEVICH, I.R., kandidat tekhnicheskikh nauk; KLOCHKOV, A.I.; BEREZKIN,
P.N. inzhener; BAUTINA, V.A.; SHAKHMATOV, V.M.

Investigating the causes of paint deterioration in the vicinity of
welds. Vop.svar.proizv. no.7:82-93 '55. (MLRA 10:3)
(Paint) (Tractors--Welding)

BEEZKIN, P.N., inzhener.

Automatic welding of small cross-section machine parts. Vop.svar.
proizv. no.7173-81 '55. (MLRA 10:3)
(Tractors--Welding) (Electric welding)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800006-6



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800006-6

2. USSR (600)
 4. Welding
 7. Review of the book "Information for welders." Avtorg.delo 23 no.10, 1952.
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

BEREZKIN, P. N.

514-K. WELDABILITY OF "BUBBLING" STEEL. (IN RUSSIAN).
P. N. BEREZKIN. AVTO. DELO (WELDING) V, 21, May 1960
p. 21-22.

Experimental investigation shows that thin sheets
of "bubbling" steel should not be used for welded joints
requiring hermetic sealing and operating under dynamic
impact loads. (K9,ST)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800006-6

BEREZKIN, N.F.

DECEASED

SEE ILC

SURGERY

BEREZKIN, N. E.

6927. Berezkin, N. E. Obshchaya khirurgicheskaya tekhnika. Stalinabad,
1953 (utp. dan. 1954). 152s. s illus. 23sm. (Stalinab. med. in-t im. Abu-all
IbnSino (Abitsemy) . Trudy.l.) 500 ekz. B. ts. V per. -- (55-2253)p
617-089

SC: Knizhnaya Letopis' No. 6, 1955

ALESANDROV, M.T., red.; BEREZKIN, N.A., red.; KAPITONOV, A.G., red.;
STRAKHOVA, N.I., red.; KOZHEVNIKOVA, V.A., red.; CHEREMISOV, M.F.,
tekhn.red.

[Kuibyshev Province; its history and economy] Kuibyshevskais oblast';
istoriko-ekonomicheskii ocherk. [Kuibyshev] Kuibyshevskoe knishnoe
izd-vo, 1957. 494 p.
(MIRA 11:4)
(Kuibyshev Province)

B

ZAKHAROV, N.D.; BEREZKIN, I.N.

Vulcanization of carboxyl rubbers with peroxides. Kauch. i rez.
20 no.10:7-10 0 '61. (MIRA 14:12)

1. Yaroslavskiy zavod rezino-tehnicheskikh izdeliy i Yaroslavskiy
tekhnologicheskiy institut.
(Carboxyl group) (Vulcanization)
(Rubber, Synthetic)

BEREZKIN, F. F.

24397 BEREZKIN, F. F. K voprosu ob "idiopaticheskikh kistakh" shelchmogo protoka.
Trudy Glav. voyen. Gospitalya voornsh. Sil. SSSR. in. akad. Burdenko.
Vyp. 6. N., 1949, s. 113-26. - Bibliogr: 16 naizv.

SG: Letopis, No. 2, 1949.

BEREZKIN, D.P.

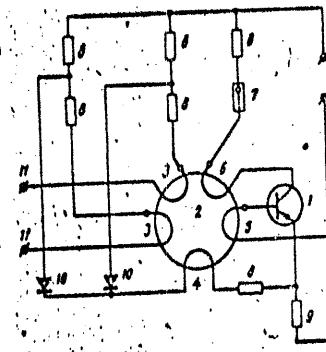
Effect of some factors of the local and regional expansion of rectal
cancer on its prognosis. Vop. onk. 10 no.2:67-73 '64.
(MIRA 17:7)

1. Iz 1-go khirurgicheskogo otdeleniya (zav.-chlen-korrespondent
AMN SSSR prof. S.A. Khordin) Instituta onkologii AMN SSSR (dir.
-deystvite1'nyy chlen AMN SSSR prof. A.I. Sereb'ov). Adres avtora:
Leningrad, P-129, 2-ya Berezovaya alleya, d.3, Institut onkologii
AMN SSSR.

BEREZKIN, B.T.

Press plate on 271 molding machines. Lit. proizv. no.3:26-27
Mr '58. (MIRA 11:4)
(Foundry machinery and supplies)

ACC NR: AP6033500



1--transistor; 2--ferrite core; 3--input windings; 4--compensating winding; 5--base winding; 6--collector winding; 7--load; 8--limiting resistors; 9--bias resistor; 10--stabilitrions; 11--circuit inputs

SUB CODE: 09 / SUBM DATE: 04Dec64

Card 2/2

ACC NR: AP6033500

SOURCE CODE: UR/0413/66/000/018/0127/0128

INVENTOR: Berezkin, B. S.

ORG: None

TITLE: A coincidence circuit. Class 42, No. 186203

SOURCE: Izobret prom obraz tov zn, no. 18, 1966, 127-128

TOPIC TAGS: coincidence circuit, transistorized circuit, pulse signal

ABSTRACT: This Author's Certificate introduces a coincidence circuit for pulse signals. This unit contains a transistor and a core with a rectangular hysteresis loop with input, compensating, base and collector windings. Resistance to interference is improved by including stabililitrons in the circuit. Each stabililitron is connected in series with the input windings and the cathodes are tied to the series-connected compensating winding and the bias resistor in the emitter circuit of the transistor.

Card 1/2

UDC: 681.142.07

ZHEREBIN, B.N.; DEMBOVETSKIY, V.P.; MINKIN, V.M.; NIKULINSKIY, I.D.;
Prinimali uchastiye: OSHAROV, V.M., inzh.; RAYEV, Yu.O., inzh.;
ZHIGULEV, P.T., inzh.; SUCHKOV, I.A., inzh.; BEREZKIN, B.S.,
inzh.; NEKRASOV, V.M., inzh.; ZHUKOVICH, A.I., inzh.

Use of coke-oven gas in blast furnaces. Stal' 21 no.8:673-679
(MIRA 14:9)
Ag '61.

1. Kuznetskiy metallurgicheskiy kombinat i Sibirskiy me-
tallurgicheskiy institut.
(Blast furnaces--Equipment and supplies)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800006-6

ZYKIN, L.A.; IVANSKAYA, O.N.; KHADZHIYEV, N.Kh.; BEREZKIN, A.S.

Work practices of meat, milk, and food inspection stations.
Veterinariia 42 no.7/97-98 J1 '65. (MIRA 18:9)

BEREZKIN, A.G. [Berezkin, O.H.]

Quantity of synovial fluid in the leg joints of cattle. Dop.
AN URSR no.4:522-525 '65. (MIRA 18:5)

1. Institut zoologii AN UkrSSR.

LYUBICH, G., vtoroy shturman; BEREZKIN, A., vtoroy mekhanik

Worries of shipping economists. Mor. flot 25 no.3:12 Mr '65.
(MIRA 18:4)

1. Chleny gruppy ekonomicheskogo analiza teplokhoda "Liski".

BEREZIUC, R.; PREDESCU, G.

General observations on aerophotography for forestry. p. 233.

REVISTA PADURIOR. (Asociatia Stiintifica a Inginerilor si Technicienilor din Romania si al Ministerului Agriculturii si Silviculturii) Bucuresti.
Vol. 71, no. 4, Apr. 1956

So. East European Accessions List Vol. 5, No. 9 September, 1956

KLEBANOV, M.A., prof. (Kiyev); Prinimali uphastiye: BEREZITSKIY, A.V. (Kiyev); PEKAR', P.P.; SAVENKOV, D.I.; TARANENKO, M.I.; MEJAMED, M.A.; BORSHCHEVSKIY, M.L. (Odessa); VIL'NYANSKIY, L.I. (Khar'kov); SOKOLOVA, Yu.I. (Khar'kov); ABERMAN, A.A.; KULAKOVA, S.A. (Simoferopol'); FUKS, R.A. (Dnepropetrovsk); BEZNOSOVA, Zh.A. (Vinnitsa); KUKLINA, N.P. (Zhitomir); SIDORENKO, G.P. (Chernovitsy); D'YACHENKO, N.S. (Stanislav).

Reduction in the periods of therapeutic pneumothorax following its use in combination with antibacterial therapy. Vrach. delo no.12; 36-40 D '60. (MIRA 14:1)

1. Ukrainskiy institut tuberkuleza imeni F.G. Yanovskogo (for Klebanov).
2. Dispanser Yugo-Zapadnykh zheleznykh dorog (for Aberman).
(PNEUMOTHORAX) (TUBERCULOSIS)

BEREZITSKIY, A. V., Cand Med Sci -- (diss) "Treatment of patients
with pulmonary tuberculosis by artificial pneumothorax combined with
antibacterial preparations," Kiev, 1960, 23 pp (Kiev Medical Institute
im Acad. A. A. Bogomolets) (KL, 35-60, 125)

ACC NR: AP603706B

SOURCE CODE: UR/0056/66/051/015/1374/1384

AUTHOR: Berezinskij, V. S.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences, SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Pryce's theorem and the neutrino theory of photons

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 5, 1966, 1374-1384

TOPIC TAGS: photon, neutrino, antineutrino, group theory, quantum statistics, quantum field theory

ABSTRACT: The author shows that many recent attempts to revive the idea that a photon is constructed from a neutrino and an antineutrino with equal energies and momenta, which was advanced many years ago and was refuted by Pryce's theorem (Proc. Roy. Soc. v. 165, 247, 1938), can in fact not be justified. To this end, the author provides a new proof of Pryce's theorem, where it is shown in general form that for free fields and for arbitrary N-particle states the requirements of invariance under space rotations, of statistics, and of genuine neutrality are incompatible for any compound photon. The proof presented takes in all the constructions that had been suggested recently with an aim at refuting Pryce's theorem. The author thanks Ye. S. Fradkin and V. Ya. Faynberg for a discussion of some particular questions in this work.
Orig. art. has: 32 formulas.

SUB CODE: 20/ SUBM DATE: 15Feb66/ ORIG REF: 001/ OTH REF: 018

Card 1/1

Transverse polarization of cosmic-ray ... S/056/62/043/003/029/063
B102/B104

> km with $E_{kin} = 44$ Mev. With decreasing production energy the transverse polarization of the muons increases. There are 2 figures.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR
(Physics Institute imeni P. N. Lebedev of the Academy of Sciences USSR)

SUBMITTED: March 17, 1962

S/056/62/043/003/029/063
B102/B104

Transverse polarization of cosmic-ray ...

$$k = 3 \quad \langle \hat{n} \rangle = \frac{3}{2} \frac{m}{p^*} \gamma^3 \frac{\sin^2 \delta}{\cos \delta} \frac{1 + \frac{1}{4} \operatorname{tg}^2 \delta \operatorname{tg}^2 \varphi}{1 + \frac{3}{4} \operatorname{tg}^2 \delta \operatorname{tg}^2 \varphi} \operatorname{tg} \varphi, \quad (8)$$

$$k = 2 \quad \langle \hat{n} \rangle = \frac{m}{p^*} \gamma^3 \frac{\sin^2 \delta}{\cos \delta} \frac{1}{1 + \frac{1}{4} \operatorname{tg}^2 \delta \operatorname{tg}^2 \varphi} \operatorname{tg} \varphi, \quad (9)$$

$$k = 1 \quad \langle \hat{n} \rangle = \frac{1}{2} \frac{m}{p^*} \gamma^3 \frac{\sin^2 \delta}{\cos \delta} \operatorname{tg} \varphi. \quad (10)$$

$\cos \phi = (\vec{E} \cdot \vec{E}^*) / \beta p$; for the distribution function

$$N(\gamma) = A \frac{\Phi(\gamma)}{\gamma^3} \cos^k \delta \int_0^\pi (1 + \operatorname{tg} \delta \operatorname{tg} \varphi \cos \theta)^k d\theta, \quad (12)$$

is found. $f(\gamma, 0)$ - number of pions with Lorentz factor γ , flying vertically in the unit solid angle, $f(\gamma, \alpha)$ - number of pions flying under an angle of α to the vertical; χ - angle between pion momentum and \hat{n} ; $d\omega = d\theta d\varphi$; β - pion velocity in the laboratory system. The asterisk indicates the system in which the pion is at rest. Concrete calculations are carried out for muons produced at altitudes

Card 2/3

S/056/62/043/003/029/063
B102/B104

AUTHOR: Berezinskiy, V. S.

TITLE: Transverse polarization of cosmic-ray muons

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,
no. 3(9), 1962, 927-931

TEXT: It is shown that if all cosmic muons are produced in pion decays,
the anisotropy of the pion angular distribution will result in the cosmic
muons being polarized transversely. The mean transverse muon polarization

$$\langle \xi_0 \rangle = -\gamma\beta(m/p^*) \langle \cos \chi \rangle;$$

$$\langle \cos \chi \rangle = \int_0^\pi \cos \chi \cos^k d\omega / \int_0^\pi \cos^k d\omega \quad (6)$$

Is calculated for a pion angular distribution $f(\gamma, \alpha) = f(\gamma, 0) \cos^k \alpha$

Card 1/3

The polarization of ...

S/056/62/042/004/026/037
B108/B102

Saint Louis, 1959; S. Olbert. Phys. Rev., 96, 1400, 1954.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering Physics Institute)

SUBMITTED: November 1, 1961

Card 2/2

44 670

3770
S/056/62/042/004/026/037
B108/B102

AUTHORS: Berezinskiy, V., Dolgoshein, B.
TITLE: The polarization of low-energy cosmic-ray muons
PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki,
v. 42, no. 4, 1962, 1084 - 1087

TEXT: The sea-level polarization of 0 - 2 Bev muons produced in pion decay was calculated and compared with experimental data. Muon production throughout the atmosphere was considered. The polarization of an inclined muon beam was found to be greater than that of a vertically incident beam of the same energy, the effective production energy of the former being the greater of the two. This effect, however, was observable only at energies of less than 200 Mev. The results agree with experimental data. There are 2 figures and 15 references: 7 Soviet, and 8 non-Soviet. The four most recent English-language references read as follows: G. Clark, J. Hersil. Phys. Rev., 108, 1538, 1957; S. Hayakawa. Phys. Rev., 108, 1533, 1957; S. Johnson. A dissertation for the degree of Doctor of Philosophy,

Card 1/2

Polarization of high-energy...

S/056/62/042/002/028/055
B108/B104

for help. There are 1 figure and 2 references: 1 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: S. I. Hayakawa. Phys. Rev., 108, 1533, 1957.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR
(Physics Institute imeni P. N. Lebedev of the Academy of Sciences USSR)

SUBMITTED: July 31, 1961

Card 4/4

X

S/056/62/042/002/028/055
B108/B104

Polarization of high-energy...

$$\begin{aligned} \cos \theta &= E E^* / p p^* - \epsilon m_\mu^2 / p p^* m_\pi, \\ E^* &= (m_\pi^2 + m_\mu^2) / 2 m_\pi, \quad p^* = (m_\pi^2 - m_\mu^2) / 2 m_\pi, \end{aligned} \quad (1)$$

over the distribution function $N(E, \epsilon, x)$:

$$\eta(E, x) = \frac{E E^*}{p p^*} - \frac{m_\mu^2}{m_\pi p p^*} \int_{-\infty}^{+\infty} \epsilon f(E, \epsilon, x) d\epsilon \int_{-\infty}^{+\infty} f(E, \epsilon, x) d\epsilon. \quad (5)$$

θ is the angle between muon spin and momentum p (laboratory system), E^* and p^* are muon energy and momentum in the system of the pion at rest. Numerical calculations showed that polarization increases with the depth x of the atmosphere and with increasing pion absorption coefficient κ . The measured polarization of muons with $E > 2 \cdot 10^9$ ev at sea level is somewhat lower than the calculated value. Professor G. T. Zatsepin and V. I. Ritus are thanked
Card 3/4

S/056/62/042/002/028/055
B108/B104

Polarization of high-energy...

expanding the number $\pi(\epsilon, x)$ of pions with ϵ at an altitude x into a series with respect to $a = \epsilon - \mu$; with $\epsilon = 0$ at $x = 0$

$$\pi(\epsilon, x) = B_0 e^{-\mu x} e^{-\gamma} \frac{x}{1+E_n/e} \left(1 - \frac{ax}{2+E_n/e} + \frac{a^2 x^2}{(2+E_n/e)(3+E_n/e)} - \dots \right) \quad (3)$$

$(m_e/\beta\tau_0)\pi(\epsilon, x)dx$ pions with ϵ decay per unit time at an altitude x . τ_0 is the pion lifetime. The distribution N of muons produced in pion decay is readily found from Eq. (3) and the muon production probability. Thus,

$$N(E, \epsilon, x) = Bx e^{-\mu x} f(E, \epsilon, x), \quad (4)$$

$$f(E, \epsilon, x) = \frac{e^{-(\epsilon+\gamma)}}{(1+E_n/e) \sqrt{1-(m_e/e)^2}} \left[1 - \frac{ax}{2+E_n/e} + \frac{a^2 x^2}{(2+E_n/e)(3+E_n/e)} - \dots \right].$$

The mean polarization of muons with energy E at an altitude x is found by averaging the equation
Card 2/4

34644
 S/056/62/042/002/028/055
 D108/B104

24.6700
 AUTHOR: Berezinskij, V. S.
 TITLE: Polarization of high-energy muons in cosmic rays
 PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
 no. 2, 1962, 485 - 488

TEXT: The polarization of muons with energy E produced in the decay of vertically incident pions with energy ξ is calculated with the aid of the diffusion equation for muons generated by primary nucleons. Ionization losses are not accounted for.

$$\frac{\partial \pi(e, x)}{\partial x} = -\chi(e) \pi(e, x) + B_0 e^{-\mu x} e^{-\gamma} - \frac{E_\pi}{x} \pi(e, x), \quad (2)$$

(χ) is the inverse effective pion path for inelastic collisions with air nuclei, μ is the inverse free path of the primary protons, $\gamma = 2.65$. $E_\pi/x\xi$ is the pion decay probability, $E_\pi = 10^{11}$ ev. Eq. (2) is solved by

Card 1/4

X

BREZINSKIY, V. S., POLGOSHEYN, B. A., LUCHKOV, B. I., KRISHCHYAN, V. N.,
MATEVESYAN, YE. M., SHARKHATUNYAN, R. O., UGHAKOV, V. I., ASATIANI, T. L.,
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"Polarization of Cosmic Ray Nuons."

report submitted for the Intl. Conf. on Cosmic Rays and Earth Storm (IUPAP)
Kyoto, Japan 4-15 Sept. 1961.

88466

Some Energy Relations Deduced by Taking Into Account Non-conservation of Parity in the μ -e Decay

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B006/B063

$E_{e\pi} = \sqrt{(\bar{E}_{ec} - \beta \bar{p}_{ec})}$, and with $\bar{E}_{ec} = 0.35m_\mu$ and $\bar{p}_{ec} = 0.05 m_\mu$ one obtains $K_{e\pi} = E_{e\pi}/m_\pi = 0.15 + 0.2 m_\mu^2/m_\pi^2 = 0.2646$. The result is not affected by a transition from the pion rest system to the laboratory system. For the μ_2 decay one obtains $K_{eK} = 0.159$.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR
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USSR)

SUBMITTED: August 12, 1960

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Some Energy Relations Deduced by Taking Into
Account Non-conservation of Parity in the
 μ -e Decay

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obtains $\bar{E}_{ec} = (7/20)m_\mu$ for the mean electron energy in the muon rest system, and $K_{e\mu c} = \bar{E}_{ec}/m_\mu = 7/20$ for the mean muon energy, $K_{e\mu c}$, carried away by the electron. For completely polarized muons, $K_{e\mu} = \bar{E}_e/m_\mu = (\bar{E}_{ec} + \beta p_{ec} \cos \theta_{\mu e})/m_\mu = 0.35(1 \pm \frac{1}{7}\beta)$. The plus sign holds for a μ^+ meson polarized in the direction of motion. The sign changes on transition to a μ^- meson or in the case of opposite polarization. If the pion-decay neutrino (antineutrino) travels in opposite direction to the muon, the relation $K_{e\mu} = 0.35(1 - \frac{1}{7}\beta)$ holds for the $\pi - \mu - e$ decay, irrespective of the pion charge; if it travels in the same direction, then $K_{e\mu} = 0.35(1 + \frac{1}{7}\beta)$, and if $\beta = 1$, then $K_{e\mu} = 0.40$. For unpolarized mesons one obtains $K_{e\mu} = 0.35$, and for partly polarized mesons, a value between 0.3 and 0.4. In addition, the energy fraction imparted to the electron component during the decay of π^\pm mesons in a vacuum has been calculated.

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24.690

AUTHORS: Berezinskiy, V. S., Zatsepin, G. T.

TITLE: Some Energy Relations Deduced by Taking Into Account
Non-conservation of Parity in the μ -e Decay

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 39, No. 6(12), pp. 1847-1849

TEXT: The energy transferred to the electron component in the decay of partly or completely polarized muons has been calculated. The energy of a decay electron in the laboratory system is given by $E_e = \gamma(E_{ec} + \beta p_{ec} \cos \theta_{\mu e})$, where γ is the Lorentz factor of the muon; β is its velocity; E_{ec} and p_{ec} are the energy and momentum of the electron in the rest system of the muon; $\theta_{\mu e}$ is the angle between the momentum of the electron in the muon rest system and the direction of motion of the muon in the laboratory system; c is set equal to 1. With $p_{ec} = 0.05 m_\mu$ one

Card 1/3

ACC NR: AP6035837

SOURCE CODE: UR/0413/66/000/020/0041/0041

INVENTOR: Berezinskiy, V. I.; Vol'fenzon, M. N.; Zakharov, G. A.; Il'in, A. G.; Pavlova, Ye. A.; Skachkov, A. M.; Shifrin, M. Sh.; Eydlin, I. I.; Yung, V. N.

ORG: none

TITLE: System for automatic regulation of the steam-main operation of a marine turbine unit. Class 14, No. 187041

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 41

TOPIC TAGS: turbine, steam turbine, engine turbine system, marine engine, marine engineering, pressure regulation, automatic regulation

ABSTRACT: An Author Certificate has been issued for a system for the automatic control of steam-main operation in marine-turbine units with steam takeoffs connected to units requiring dissimilar pressure, maintained by the use of pressure regulators, and to the cooled-steam circuit. To provide for the regulators' independent operation and to improve their functioning, the pressure regulators are connected parallel to the cooled-steam circuit. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 12Jul65/

Card 1/1

UDC: 621.1/25-225.1-531.8

SHUMILOVSKIY, N.N., akademik, otv. red.; MIKHAYLOVSKIY, V.N., zam. otv. red.; GLAUBERMAN, A.Ye., doktor fiz.-mat. nauk, red.; SVENSON, A.N., kand. tekhn. nauk, red.; BEKEZINSKIY, V.P., inzh., red.; SABANEYEV, R.D., nauchnyy red.; LIBERMAN, T.R., tekhn. red.

[Instruments for geophysical studies of wells by radioactive methods; transactions] Pribory dlia geofizicheskikh issledovaniy skvazhin radioaktivnymi metodami; trudy. Kiev, Izd-vo Akad. nauk USSR, 1962. 190 p. (MIRA 15:9)

1. Vsesoyuznyy seminar po primeneniyu radioaktivnykh izotopov v izmeritel'noy tekhnike, L'vov, 1960. 2. Akademiya nauk Kirgizskoy SSR (for Shumilovskiy). 3. Chlen-korrespondent Akademii nauk Ukrainskoy SSR (for Mikhaylovskiy)

(Radioactive prospecting... Equipment and supplies)

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What a proton told about himself. Nauka i zhizn'
29 no.12:99-101 D '62. (MIRA 16:3)
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no.5:96-97 My '62. (MIRA 15:11)
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[Hydraulic structures] Gidrotekhnicheskie sooruzheniya.
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Pod red. A.R.Berezinskogo. Moskva, Gosenergoizdat, 1962. 151 p.
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39-44 0 '60.
(Plastics) (Hydraulic engineering--Equipment and supplies)
(MIRA 13:11)

SOV/98-59-8-4/33

The Use of Plastics in Hydraulic Construction Work

There are 41 references, 16 of which are Soviet, 7 English, 7 West German, 4 American, 2 Czech, 1 East German, 1 Spanish, 1 Italian, 1 Hungarian, and 1 Dutch.

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